Shielded Firewood Cookstove





Why to choose this solution?
The Shielded Cookstove saves firewood compared to a three-stone fireplace and produces much less smoke. The Shielded Cookstove makes cooking easier, since one does not need to keep blowing air to sustain the fire or to monitor the burning all the time. The Shielded Cookstove can be designed in such a way that it can use charcoal, briquettes or firewood, thus accommodating varying fuel sources in the local communities. It is movable, such that one can cook within the kitchen or outside the kitchen. The design minimises accidents and burns, since it is insulated and structured for safety.

Savings per day or production:
The Shielded Cookstove saves three times the amount of firewood than cooking on three-stones. It uses 3-5 pieces of firewood to cook a complete meal for a normal family.

Cost in money and in own time to construct:
The stove costs USh 10,000-20,000 (USD 2.7-5.5). It takes about 3-5 hours for a skilled person to construct a shielded cookstove.

Lifetime:
5 years, if it does not fall down during moving and is not left outside during raining.

Maintenance needed:
In case of any crack developing on the stove, fill it with a piece of soil that that was used during construction. This is encouraged to be done between the time of construction to the time when the stove is completely dry and even during the period of stove usage.

Resources needed in use:
Dry pieces of firewood, charcoal, or briquettes.

Problems and limits:
Smoke production depends on the nature of fuel used. However, this stove reduces the smoke as much as possible. Good kitchen ventilation is important, and users should always use dry firewood. There are quality problems with potters that do not follow precise guidelines and measures to make it correctly, which results in consumersâ€™ feeling discouraged about the use of shielded cook stoves.

Where and how can you get it or make it?
JEEP promotes these stoves through training of trainers (TOTs) in various parts of Uganda. Contact us to get you to our nearest service provider (TOT) to your location.

Skills needed to produce, install. maintenance, use:
Production needs a skilled person; maintenance and use need short introduction only.

How to use it:
Not relevant.

How to maintain it:
Not relevant.

Climate effect (if any):
Reduces greenhouse gas emissions around 1,4 tons CO2/year.

Where it is used and how many users are there?
Used in Northern, Central, Eastern, and Western regions of Uganda. Over 1,000 families in the country have adopted this cooking technology.

Why is it successful?
It is successful because of its efficiency, limited smoke (cleaner) and affordability. It is also portable, which means that one can use it both in the kitchen and outside the kitchen.

If you can make it, a short description, typical problems, materials needed:
Needs a skilled person to make. Materials needed to make it include; dry grass, leaves, sawdust, coffee husks, rice husks, water and anthill, clay soil.

How to make it (if possible):
To be added.

How is it delivered and by whom?
Business model is production by TOTs (Trainers of Trainers) who will build these stoves in the homes of those who will have picked the interest in the energy saving shielded stove. The price of the stove will like be negotiable depending on the distance moved, availability of materials, assistance given and financial status of someone. Skilled potters / TOTs are also crucial in maintaining the quality.

Successful financial model
Support for development, trainings, and establishment of organised TOTs union.

What policies and strategies helped the success?
Government has set strict laws against deforestation. The government has encouraged the researchers / NGOs / CSOs to come to come up strategies of minimising wood (fuel) consumption during the cooking. Additionally, many actors from the private sector are taking part in the fight for climate change and are trying their best to promote efficient clean energy technologies.

More info:
Read more: JEEP, 7 Miles, Gayaza Rd, Kyanja, Kampala, P.O. Bpx 4264, Uganda. phone: +256 (414) 578 316 E-mail: info@jeepfolkecenter.org. Web: https://jeepfolkecenter.org/

Sources:
Support for development, trainings, and establishment of organised TOTs union.

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Case from Catalogue of Local Sustainable Solutions in East Africa. Read more and see partners at localsolutions.inforse.org